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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/756,877	01/10/2001	Michio Suruga	0162/00572	6218

7590 05/06/2004

Morris Liss
Pollock, Vande Sande & Amernick, R.L.L.P.
P.O. Box 19088
Washington, DC 20036-3425

EXAMINER

WOO, STELLA L

ART UNIT	PAPER NUMBER
2643	3

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/756,877	SURUGA, MICHIO
	Examiner	Art Unit
	Stella L. Woo	2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on ____.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
 5) Claim(s) ____ is/are allowed.
 6) Claim(s) 1-10 is/are rejected.
 7) Claim(s) ____ is/are objected to.
 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 10 January 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date ____.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date ____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-9 are rejected under 35 U.S.C. 102(b) as being anticipated by DeVitt et al. (US 5,212,733, hereinafter “DeVitt”).

Regarding claims 1, 3-8, DeVitt discloses an audio mixer (sound mixing system 10) comprising:

an effect algorithm processor (external processors such as compressors, limiters, equalizers, reverb units, delay units, to achieve certain effects; col. 1, lines 44-47; col. 1, line 60 – col. 2, line 4);

an addition processor (mixing circuit 14 receives sound input signals and provides sound output signals to right and left circuits 46 and 48; col. 3, lines 36-45);

an in-plane position sensor (x and y coordinates of an icon 106, maneuvered by mouse 34, are used to update each controllable amplifier; col. 5, lines 24-48; col. 6, lines 9-32); and a controller (computer system 12 acts as an interactive controller; col. 3, lines 29-35).

Regarding claim 9, mouse 34 includes a right button 35a which activates an icon, the position of which is used to update a controllable amplifier (col. 5, lines 29-34; col. 6, lines 29-32, 49-58). Special function keys on keyboard 32 can also be used (col. 6, lines 33-40).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeVitt in view of Frassinetti (US 5,237,619).

DeVitt differs from claim 2 in that it does not specify an effect algorithm processor as having a variable low pass filter or a variable high pass filter. However, Frassinetti teaches the desirability of using a low-pass filter (13) and a high-pass filter (15) within a sound mixer in order to avoid unpleasant harmonic distortions (col. 1, lines 13-48; col. 3, lines 21-26; col. 4, lines 3-10) such that it would have been obvious to an artisan of ordinary skill to incorporate such use of filters, as taught by Frassinetti, within the audio mixer of DeVitt for the same purpose of reducing unpleasant harmonic distortions, thus, improving sound quality.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeVitt in view of Bargauan (US 5,933,505).

DeVitt differs from claim 10 in that it does not specify a pressure sensor disposed in overlapping relationship with the position sensor. However, Bargauan teaches the desirability of using a touchpad as an alternative to a mouse for controlling audio mixer parameters (col. 3, lines 29-32) such that it would have been obvious to an artisan of ordinary skill to incorporate the use of a touchpad, as taught by Bargauan, as an alternative to the mouse input of DeVitt.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gale et al. show another audio system which uses a low-pass filter and a high-pass filter.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stella L. Woo whose telephone number is (703) 305-4395. The examiner can normally be reached on Monday-Tuesday, Thursday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703) 305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Stella L. Woo
Primary Examiner
Art Unit 2643